# GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

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General Headquarters, Washington, D. C.

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A NOMAD GIRL, NEAR GABES, TUNISIA

**DO YOU WISH YOUR BULLETINS CONTINUED?**

Requests for the Geographic News Bulletin must be renewed if you asked for them in February, 1922. If you desire the Bulletins continued please notify The National Geographic Society, Washington, D. C., promptly. The blank following Bulletin No. 4 may be used.

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## Plymouth—The Other One

PLYMOUTH, ENGLAND, one of the most historic towns of the island, sounds a modern note in its recent announcement that it will go in for commerce and hopes to become one of the world's great ports.

The English town which has been made famous in America by its New England namesake is located near the southwest corner of England, at the mouth of the river Plym. The site is on a series of natural terraces, sloping south to the sea, which form part of the foothills of Dartmoor. The harbor, one of the finest and largest in the kingdom, opens to the south.

"'Tis a notable old town," said Longfellow, and every patriotic American who has visited there has trod lightly and with reverence. Out of the harbor of Plymouth sailed Sir John Hawkins and Sir Francis Drake to meet and conquer the Spanish Armada, a feat which wrote "finis" to the sea-power of Spain. And had Philip succeeded in his design to crush the British lion in 1588 the history of this republic would have borne little of the English impress.

### A Famous Embarkation Port

Sir Humphrey Gilbert sailed from here to take possession of Newfoundland; Sir Walter Raleigh to colonize Virginia; and in 1620 the *Mayflower* spread her sails at the barbican of Plymouth on her daring expedition to the new country.

To Plymouth men was given the first charter for trading with America and to Plymouth men, also, King James gave a charter whereby the region which had been called "the North Parts of Virginia" was to be the domain of "the council established at Plymouth in the County of Devon, for the planting, ruling, ordering, and governing of New England in America." The first colonists of Australia (not the Botany Bay convicts) took ship at this port for their home beyond the seas. Here also embarked the brave troops which fell in the Crimean War, and a year or so later the troops sent out to quell the Indian Mutiny.

The principal sights of interest in Plymouth are St. Andrew's Church, in the center of the town, built in the 15th century and restored by Sir Gilbert Scott in 1875; the old Guildhall, now a public library; the old town hall, now a museum of old books, drawings, printings and portraits, among which is to be found a picture of the Pilgrim Fathers embarking at the barbican; the castle of the Earl of Edgecumbe, built in the reign of Henry VIII; the Eddystone Lighthouse; and the Citadel, on the eastern portion of the Hoe, constructed in 1616.

### A Wonderful Promenade

Most interesting of all is the Hoe, a hill 110 feet above the sea, the top of which is laid out to parks and gardens, and the most wonderful promenade in the kingdom. It was on this hill that the fabled wrestling match between the Trojan Corinaeus and the giant Goemagol (Gogmagog) took place. To Corinaeus, who held "it a diversion to encounter giants" was reserved the



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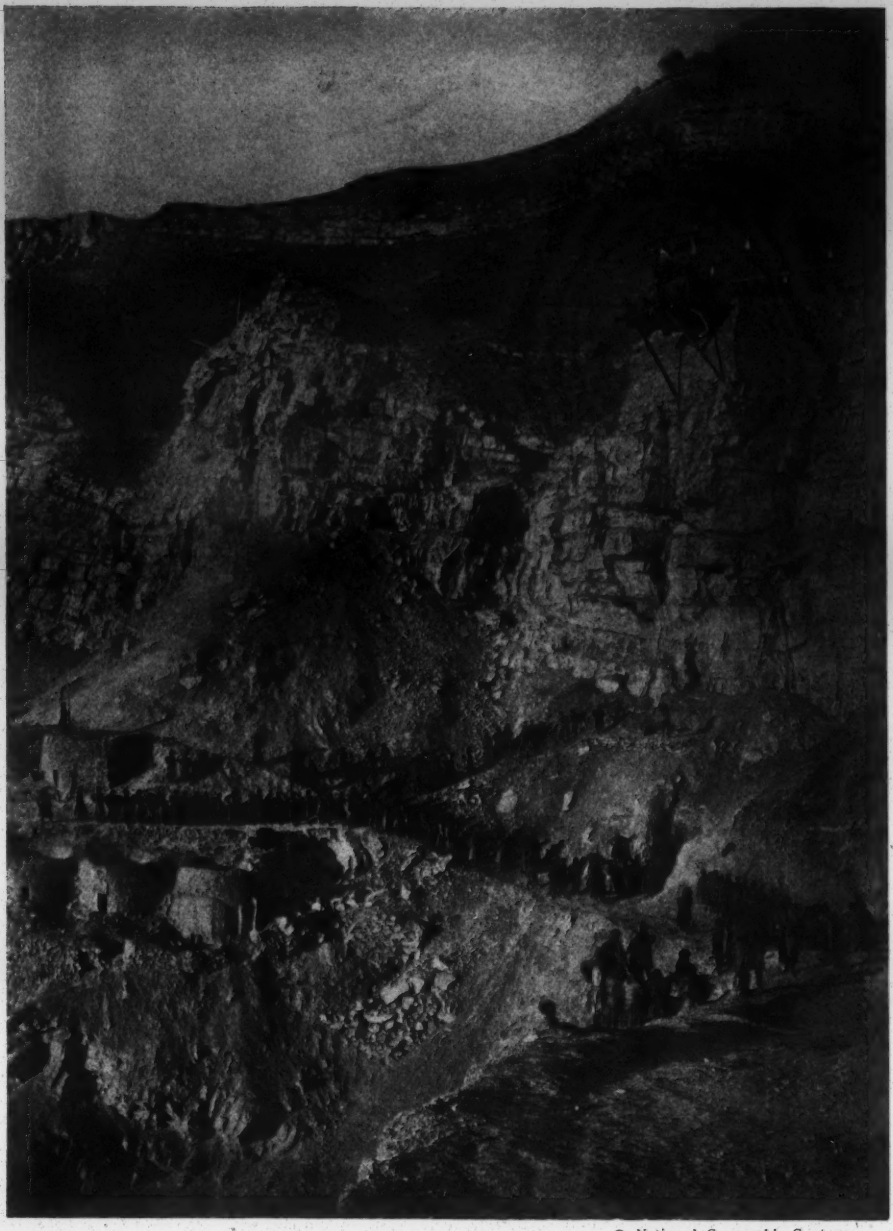

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**A SULPHUR MINE IN THE CAUCASUS**

The whole of this region is rich in mineral deposits. Copper and manganese are obtainable in large quantities; sulphur and iron are abundant.

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## Daghestan Pleads for Veils and Victuals

TIMES are so hard in Daghestan that many women have no veils!

In the pinch of poverty a veil is about the last thing an American woman would worry about. In Daghestan she would dispense with food, shoes, and perhaps her home before she would appear in public unveiled.

Daghestan is an "island in the sea of history."

### "Most Remarkable Mountain Mass"

In the southeastern corner of European Russia, between the Black Sea and the Caspian, in about the latitude of New York City, there rises abruptly from the dead level of the Tatar steppes a huge, broken wall of snowy, alpine mountains, which has been known to the world for more than 2,000 years as the great range of the Caucasus.

It is in some respects one of the most remarkable mountain masses in existence. Its peaks outrank those of Switzerland, both in height and in rugged grandeur of outline; its glaciers, ice-falls, and avalanches are all upon the most gigantic scale; the diversity of its climates is only paralleled by the diversity of the races that inhabit it; and its history, beginning with the Argonautic expedition, is more remarkable and eventful than that of any other range on the globe.

Few other regions in the world present, in an equally limited area, such diversities of climate, scenery, and vegetation. On the northern side of the range lie the treeless wandering grounds of the Nogai Tatars—illimitable steppes, where for hundreds of miles the weary eye sees in summer only a parched waste of dry steppe grass, and in winter an ocean of snow, dotted here and there with the herds and the black tents of the nomadic Mongols.

### A Transformation of Nature

But cross the great range from north to south, and the whole face of Nature is changed. From a boundless steppe you come suddenly into a series of shallow, fertile valleys, blossoming with flowers, green with vine-tangled forests, sunny and warm as the south of France.

Sheltered by a rampart of mountains from the cold northern winds, vegetation here assumes an almost tropical luxuriance. Prunes, figs, olives, oranges, and pomegranates grow, almost without cultivation, in the open air; the magnificent forests of elm, oak, maple, colchian poplar, and walnut are festooned with blossoming vines, and in autumn the sunny hillsides of Georgia, Kakhetia, and Mingrelia are fairly purple with vineyards of ripening grapes.

Climate here is only a question of altitude. Out of these semi-tropical valleys you may climb in a few hours to the highest limit of vegetable life and eat your supper, if you feel so disposed, on the slow-moving ice of a glacier.

### Robinson Crusoes of Shipwrecked States

The Caucasian range may be regarded for all ethnological purposes as a great mountainous island in the sea of human history, and on that island now

privilege of wrestling with this being "twelve cubits high," after the Trojans had killed all his tribesmen. The Trojan apparently took little interest in the encounter until the giant had broken three of his ribs, which so provoked Corinaeus that taking the giant on his shoulders he ran with him to the shore, and "getting upon the top of a high rock, hurled down the savage monster into the sea, where falling on the sides of craggy rocks he was torn to pieces, and colored the waves red with his blood."

To the world of arms, art, and song Plymouth has made large contributions. Three Royal Academicians and one President of the Royal Academy were born there. Among the painters are Sir Charles Eastlake, Samuel Prout, James Northcote, Benjamin Robert Haydon, Solomon Hart, and many others, while Sir Joshua Reynolds was born four miles away in the little town of Plymton.

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**A STEAM SHOVEL HALF BURIED BY A SLIDE OF THE PANAMA CANAL. (See Bulletin No. 3)**

Many miles of railroad track and steam shovels by the dozen were destroyed by slides in this cut. Often, however, the slide bodily raised the bottom of the cut, leaving steam shovels standing on their tracks, hardly out of alignment, but 15 feet or more above the place where they should normally have been.

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## Uncle Sam's Gate to the Pacific

NEXT to building the Great Wall of China, man's most colossal alteration of nature was the building of the Panama Canal. The only comparable undertaking in modern times is the reclamation of Netherlands areas from the Zuyder Zee.

Interchange of some of the largest battleships in the American Navy between the Atlantic and Pacific fleets through the Panama Canal shows that the big waterway is functioning along the lines laid down for it when the United States undertook the task of constructing a seaway between the two Americas.

### Undertaking Far Greater Than Expected

When the work of building the Canal was undertaken, no one dreamed what a tremendous amount of material would have to be moved to make it a usable waterway such as it is today.

At that time it was figured that the total excavations for the Canal proper would be 101,000,000 cubic yards. But by reason of enlargements and slides the task continued to grow until approximately a quarter of a billion cubic yards of material had to be removed. The rail distance from Union Station, Washington, D. C., to the Pennsylvania Terminal, New York, is approximately 228 miles. Imagine instead of the roadbed a canal with vertical banks, 45 feet deep and 124 feet wide—deep and wide enough to accommodate the biggest ship that floats, and connecting the national metropolis with the country's Capital—and you will have a picture of the amount of material that had to be removed to make the great Isthmian highway a completed project.

### Dirt Dug Would Make 100 Cheops

Nor does this remarkable comparison include either the excavations by the French in the Canal nor those of the Americans for the auxiliary port works, coaling stations, etc. These were vast enough to widen the imaginary Washington-New York shipway to 154 feet. On the bottom of this ditch could be laid eleven standard American railway tracks.

One can get another picture of the immensity of the task by reflecting on the fact that the total spoils which had to be removed to unite the seas, divide the continents, and shorten the sea lanes of the world at Panama were equal in volume to more than one hundred pyramids of the dimensions of Cheops, two such pyramids for every mile of the big waterway from deep water in the Atlantic to deep water in the Pacific.

The saving effected by ships using the Canal has more than justified the hopes of the Government in undertaking its construction. In prewar days the cost of maintaining a freighter in commission was approximately ten cents per net registered ton per day. Thus, a 10,000-ton steamship cost for maintenance about $1,000 a day. Its average speed was around 250 knots a day. On the trip from New York to San Francisco there is a saving of thirty-two days. With such a ship, this extra distance would cost, on the basis of prewar prices



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live together the surviving Robinson Crusoes of a score of shipwrecked states and nationalities.

In Daghestan there are four or five thousand Jews, who, although they have lost their language and their national character, still cling to their religion; and among high peaks in the same province, is settled a community of Christians, said to be the descendants of a band of medieval Crusaders. But these are exceptions; nine-tenths of the mountaineers are Mohammedans of the fiercest, most intolerant type.

The languages and dialects spoken by the different tribes of this heterogeneous population are more than thirty in number, and two-thirds of them are to be found in the province of Daghestan, at the eastern end of the range, where the ethnological diversity of the population is most marked.

### A Village With a Language All Its Own

Languages spoken by only 12 or 15 settlements are comparatively common; and on the headwaters of the Andiski Koisu, in southwestern Daghestan, there is an isolated village of fifty or sixty houses—the *aoul* of Innookh—which has a language of its own, not spoken or understood by any other part of the whole Caucasian population.

Of course, the life, customs, and social organizations of a people who originated in the way herein described, and who lived for perhaps 2,000 years in almost complete isolation from all the rest of the world, presented when they first became known many strange and archaic features. In the secluded valleys and canyons of the eastern Caucasus it was possible to study a state of society that existed in England before the Norman conquest, and see in full operation customs and legal processes that had been obsolete everywhere else in Europe for at least a millennium.

Many of the *aouls* of central and southern Daghestan bear a striking resemblance to the pueblos and cliff-dwellings of New Mexico. The stone-walled houses are built together in a compact mass on the steep slope of a high terrace, and the flat roofs rise in tiers or steps, one above another, just as they do in the settlements of our pueblo Indians. The roof of one house forms a small square front yard for the occupants of the house next above it, and ladders serve as means of intercommunication between the roofs of the ascending tiers.

**Bulletin No. 2, February 26, 1923.**

## Note to Teachers

References to articles and pictures in The National Geographic Magazine concerning subjects treated in this Bulletin are given because many teachers wish to employ them for further study or for project and problem assignments. The following is only a partial bibliography extracted from "The Cumulative Index of The National Geographic Magazine" (1899-1922, inclusive). A limited supply of some numbers may be ordered from The Society's offices at the prices named. Those numbers marked with an asterisk (*) are out of print. Bound volumes of The Geographic may be consulted in any public library and in school libraries.

**Abyssinia—the Country and People.** By Oscar T. Crosby. Vol. XII, pp. 89-102, March, 1901. (*)

**The Geography of Abyssinia.** Vol. XII, pp. 274-276, July, 1901. 75c.

**Daghestan: An Island in the Sea of History.** By George Kennan. Vol. XXIV, pp. 1086-1140, 49 ills., 1 page map, October, 1913. 50c.

**England: London. By Florence Craig Albrecht.** Vol. XXVIII, pp. 263-294, 28 ills., Sept., 1915. 50c.

**Through the Heart of England in a Canadian Canoe.** By R. J. Evans Vol. XLI, pp. 473-497, 26 ills., 1 half-page map, May, 1922. 50c.

**Panama Canal: Battling with the Panama Slides.** By William Joseph Showalter. Vol. XXV, pp. 133-153, 15 ills., Feb., 1914. (*)

**The Panama Canal.** By Lieut. Col. George W. Goethals. Vol. XXII, pp. 148-211, 49 ills., 2 half-page maps, 1 diagram, Feb., 1911. (*)

**Plymouth (England): Channel Ports—and Some Others.** By Florence Craig Albrecht. Vol. XXVIII, pp. 1-55, 45 ills., July, 1915. 50c.

**Tunisia: Tunis of Today.** By Frank Edward Johnson. Vol. XXII, pp. 723-749, 24 ills., Aug. 1911. 75c.

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## Abyssinia: Where Pilgrimages to Jerusalem Still Are Made

THREE SONS of the new King of Abyssinia have entered an American college—a fact likely to be misconstrued as indicating that Abyssinia is gaining its first introduction to a Christian civilization. On the contrary Abyssinians were Christians when our ancestors were pagans in the forests of northern Europe.

This fact makes it all the more unusual that, today, Abyssinia includes what may be called semi-barbaric Christians.

### Country Unique for Many Reasons

Abyssinia is unique for other reasons than its religion. It is the only African empire, and one of the three or four empires remaining in the world. And it is the only bit of land on the great continent of Africa, with the exception of the little republic of Liberia which has not been made the possession or the protectorate of some European power.

Geographical environment has played no small part in the retention of the country's independence. It is set on a great plateau which is a natural fortress; and while the natives of most other sections of tropical Africa dwell in enervating jungles or inhospitable deserts, the people of Abyssinia, thanks to their altitude, fertile soil and temperate conditions in general, have an invigorating climate and a land literally of "milk and honey."

Disadvantages as well as advantages have sprung from Abyssinia's geographical situation. The Abyssinians had no access to the sea for centuries; and held to their inland table-lands without contact with the outside world, failed to make the most of their possession of a lofty religion and an early start toward civilization, and have remained a semi-barbaric people. It is perhaps remarkable that, isolated as they were, they maintained their Christianity in any recognizable form. Observers marvel at the fact that the principal tenets and observances of the faith which they received are practically pure, rather than at the growth beside them of certain superstitions and laxities.

Europe harbored a persistent tradition during the Middle Ages that there existed in Asia or Africa a marvelous Christian kingdom under a king-priest called "Prester John." A number of expeditions were sent out from various countries to establish contact between this semi-mythical person and the rulers of Christendom. It is generally believed that Abyssinia, its wealth and power greatly magnified in the tales, was Prester John's domain.

### Became Christians in Fourth Century

The first contact with this isolated Christian nation was established by the Portuguese two years before Columbus discovered America, after they had pioneered the route around Africa and were exploring the shores of the Indian Ocean and the Red Sea. The newcomers were well received.

The Abyssinians, or Ethiopians as they called themselves, had been converted in 330 by a missionary from the Coptic Church of Alexandria and had remained loyal to its chief tenets throughout the more than a thousand years since.

Under the present political situation, Abyssinia is entirely cut off from the



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$33,000. On the basis of post-war prices it would cost about $50,000. The vessel, by using the Canal in prewar days, paying $1.20 per net registered ton, or $12,000, saved its owners or charterers $21,000. On the basis of present day prices, the saving amounts to nearly $40,000.

### Saves Many Thousands of Dollars

While it looks rather high to think of a 15,753-ton ship paying $18,900 for an eight-hour trip through the Canal, yet to choose that route between the East and West coasts of the United States over the Magellan route, would save upward of $52,000 on the trip.

Another interesting thing about the toll rates at Panama is the comparatively low rates at which cargo moves through the Canal. A net registered ton in shipping practice is 100 cubic feet of cargo space. Now, it happens that most cargo doesn't require so much room, and that for some commodities three tons can be put in each net register ton space. For instance cotton takes much more room that nitrates. A cargo of the latter has moved through the Canal for 37 cents a ton, while a cargo of lumber might cost a dollar a ton.

**Bulletin No. 3, February 26, 1923.**

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**THE DARIEL PASS IN WINTER.** (See Bulletin No. 2)

**To cross the Caucasus in winter, even by the most practicable of the passes, is an undertaking of no small difficulty. The traveler has often, literally, to dig his way through the snow.**

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## Our Ties With Tunisia

A VISIT to a fruit store with its dates, oranges, lemons, and almonds; the singing of "Home, Sweet Home;" the theological background of the services at any Christian church—these are some of the links that bind an American, though he may be unaware of it, to desert-fringed Tunisia.

In Oak Hill Cemetery in Washington lies buried John Howard Payne, the homeless actor and author of "Home, Sweet Home," whose first resting place was in the City of Tunis, where he died while he was American Consul at the Tunisian capital. A tomb like that erected to him in Washington marks his former grave in Tunis.

### Africa's "Farthest North"

Agriculture is the chief industry of the region, about the size of the State of Mississippi, which lies between the Mediterranean and the Sahara, and projects farther north than any other point in Africa. Citrus fruits, almonds and pistachio nuts form a large proportion of its exports. Cork and henna are other important products.

Some ten miles from Tunis are the ruins of Carthage, cradle of Christian theology, where St. Augustine, most influential of the fathers of the early Latin Church, taught rhetoric and produced important dogmatic writings. The practical lady traveler who assured her companions that the site of Carthage was bound to "come back" because it afforded excellent sites for hotels and such splendid opportunity for a golf course between it and Tunis was more accurate in geography than imbued with reverence. The harbors which Appian described still are to be seen; the rest of the city has succumbed to Cato's edict, "Delenda Est Carthago."

### Once Rivaled Rome

The present thriving city of Tunis, however, is reputed to be older than Carthage, one-time rival of Rome both in importance and corruption. Indeed, to the Roman world the littoral of Tunisia was Africa. The very word "Africa" is a Latinized form of the Berber name for this region, "Ifriqa." The gypsies of Africa, the Berbers, still are to be found in Tunisia, practically unchanged and unchangeable as when they defied Roman power and Augustinian persuasion. Even today Tunisia is an unconquered country, since France recently assumed a protectorate upon native invitation.

Tunis might be called a roofed-over city. Many of its streets are wholly or partly arched over, and its famous bazaar is a vast market place under cover. The women folk of the city are striking to the first-time visitor, whether they be rotund Jewesses, with pantaloons and funnel-like hats, or ladies of the Arab harem, completely obscured by clothes, or the bronzed, lithe figures of Berber girls. The attire of the men often is more colorful. Their love of colors, especially the lighter and more delicate shades, gives a chromatic impression of an American city's Easter parade.



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sea and the Nile by the colonies of European powers: Italian Eritrea, French Somaliland and British Somaliland on the north; Italian Somaliland on the east; British East Africa on the south; and the Anglo-Egyptian Sudan on the west. But this is a mere holding of the gates by new keepers; since the rise of Mohammedan power in the Near East the country has been cut off about as effectively by various Mohammedan tribes. Those people of Arabian blood were able to take possession of the low desert lands, but on their invigorating highlands the Abyssinians were, with rare exceptions, masters.

### Twice Size of Germany

Abyssinia is more than twice the size of the German Republic and of about the area of California, Oregon and Nevada together. The country lies in the same latitude as Venezuela and the southern islands of the Philippines, well in the tropics; but because of its general high elevation it has, like Mexico, a much cooler and more healthful climate than its proximity to the equator would indicate.

The country's highlands are from 5,000 to 8,000 feet above the sea. Their rolling prairies are well watered and have a good growth of grass. The climate on these uplands is superb, and if one desires cooler surroundings there are mountain chains rising from the plateau in almost all sections. Some of these mountains reach a height of 15,000 feet and are topped by perpetual snow. Irrigation could be practiced in Abyssinia to great advantage, but the utilization of the abundant water supply in that way seems never to have entered the minds of the natives.

The great amount of water which runs down from the Abyssinian mountains has carved gigantic gorges through the table lands, some of which, in depth at least, rival the Grand Canyon of the Colorado. The gorge of the Blue Nile, which flows for more than half its length through Abyssinia, is from 5,000 to 6,000 feet deep in places. The material washed from this remote chasm has played an important part, incidentally, in the history of the world. Ground into silt and deposited through the centuries and milleniums in the lower valley of the Nile, it produced there a garden spot and made possible the growth of one of the world's earliest civilizations.

A pilgrimage to Jerusalem is the ambition of every Abyssinian priest, and observers report that such pilgrimages are valuable in broadening the outlook of the religious teachers. The services are largely conducted in the old Ethiopian tongue, which for centuries has been a dead language. The Abyssinians seem to give less thought to preserving the memories of their dead than any other people beyond the savage state, Christian or pagan. Graves are seldom marked or cared for. Even the burial places of the emperors are soon lost to knowledge.

**Bulletin No. 4, February 26, 1923.**

## Form for Renewal of Bulletin Requests

Many requests for the Geographic News Bulletin were made for the year ending with a February, 1923, issue. If you desire the Bulletins continued kindly notify The Society promptly. The attached form may be used:

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A physical curiosity of Tunisia is the salt lakes, on the edges of Sahara, which, at a distance, have the appearance of placid sheets of water, or ice-covered ponds, if one's imagination could free itself from thought of the blazing sun. Closer inspection discloses dried mud, encrusted with salt. For several months in the year rainfall converts these glazed areas into impassable marshes.

**Bulletin No. 5, February 26, 1923.**

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**INTERIOR COURTYARD OF A MOSLEM SCHOOL AT KAIRWAN, TUNISIA**